

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:  
Menashe Shahar et al.

For: PROGRAMMABLE PHY FOR  
BROADBAND WIRELESS ACCESS  
SYSTEM

Serial No. 09/771,328

Filed: January 26, 2001

Examiner: Not yet assigned

Group Art Unit: Not yet  
assigned

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INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents  
Washington, D.C. 20231

Sir:

Applicant submits herewith patents, publications or other information (listed on the attached Form PTO/SB/08A) of which Applicant is aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56. The majority of these references were cited in communications from a foreign patent office in counterpart foreign applications more than three months prior to the filing of this Information Disclosure Statement, but prior to receipt of the first Office Action on the merits of the subject application.

In accordance with 37 CFR § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in this statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b).

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the listed references.

No fee is believed to be due, however, the Commissioner is hereby authorized to charge any additional fees (or credit any overpayment) associated with this communication and which may be required under 37 CFR § 1.16 or §1.17 to Deposit Account No. 03-3821, referencing Attorney Docket No. 23600.00901. A duplicate sheet is attached.

Respectfully submitted,

Crosby, Heafey, Roach & May  
Professional Corporation

Dated: December 3, 2001

By: 

Name: John W. Carpenter

Registration No. 39,129

Attorneys for Applicants

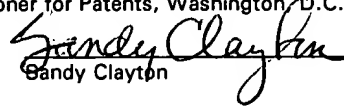
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**CERTIFICATE OF MAILING - 37 C.F.R. § 1.08**

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<b>Substitute for Form PTO-1449</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary).				<b>Complete if known</b>	
				Application Number	09/771,328
				Filing Date	January 26, 2001
				First Named Inventor	Menashe Shahar et al.
				Group Art Unit	Not Assigned
				Examiner Name	Not Assigned
Sheet	1	of	4	Attorney Docket Number	23600.00901

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant Of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	4,010,465		Dodgington, et al	03/01/1977	
	A2	4,099,121		Fang	07/04/1978	
	A3	4,385,384		Rosbury et al.	05/24/1983	
	A4	5,052,024		Moran, III et al.	09/24/1991	
	A5	5,272,700		Hansen et al.	12/21/1993	
	A6	5,311,550		Fouche, et al	05/10/1994	
	A7	5,377,035		Wang et al.	12/27/1994	
	A8	5,408,349		Tsushima et al.	04/18/1995	
	A9	5,471,645		Felix	11/28/1995	
	A10	5,481,542		Logston et al.	01/02/1996	
	A11	5,481,561		Fang	01/02/1996	
	A12	5,487,099		Maekawa	01/23/1996	

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	B1	EP	0021 544 A1		Nuhoff	01/07/1981		
	B2	EP	0025 767 A1		Gregoire et al.	03/25/1981		✓
	B3	CA	2,187,141		Vallee et al.	04/04/1998		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>3</sup>
	C1	Golestani, S. (1995) "Network Delay Analysis of a Class of Fair Queueing Algorithms", <i>IEEE Journal on Selected Areas in Communication</i> 13(6):1057-1070	
	C2	Stiliadis, D. et al. (1998) "Rate-Proportional Servers: A Design Methodology for Fair Queueing Algorithms", <i>IEEE/ACM Transactions of Networking</i> 6(2):164-174	
	C3	Stiliadis, D. et al. (1998) "Efficient Fair Queueing Algorithms for Packet-Switched Networks", <i>IEEE/ACM Transactions of Networking</i> 6(2):175-185	
	C4	Data Over Cable Interface Specifications, Cable Modem Termination System-Network Side Interface Specification, SP-CMTS-NSII01-960702 (July 2, 1996) pp. i-13	

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation is not in conformance and not considered. Include copy of this form with next communication to applicant.

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	A13	5,510,859		Douglass, et al	04/23/1996	
	A14	5,557,612		Bingham	09/17/1996	
	A15	5,590,409		Sawahashi et al.	12/31/1996	
	A16	5,596,604		Cioffi et al.	01/21/1997	
	A17	5,606,664		Brown et al.	02/25/1997	
	A18	5,625,874		Uchida et al.	04/29/1997	
	A19	5,634,206		Reed et al.	05/27/1997	
	A20	5,666,646		McCollum et al.	09/09/1997	
	A21	5,740,525		Spears	01/14/1998	
	A22	5,724,385		Levin, et al	03/03/1998	
	A23	5,734,589		Kostreski et al.	03/31/1998	
	A24	5,752,161		Jantti et al.	05/12/1998	
	A25	5,796,783		Crawford	08/18/1998	
	A26	5,809,090		Buternowsky et al.	09/15/1998	

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	C5	Data-Over-Cable Service Interface Specifications, Cable Modem to Customer Premise Equipment Interface Specification. SP-CMC1-102-980317 (March 17, 1998) pp. i-40		
	C6	Data-Over-Cable Service Interface Specifications, Radio Frequency Interface Specification, SP-RFI-104-980724 (July 24, 1998) pp. i-196		
	C7	Data-Over-Cable Service Interface Specifications, Operations Support System Interface Specification SP-OSSI-102-990113 (January 13, 1999) pp. i-14		
	C8	Data-Over-Cable Service Interface Specifications, Operations Support System Interface Specification Radio Frequency Interface, SP-OSSI-RFI-103-990113 (January 13, 1999) pp. i-29		

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	A27	5,809,406		Taki et al.	09/15/1998	
	A28	5,809,427		Perreault et al.	09/15/1998	
	A29	5,818,825		Corrigan et al.	10/06/1998	
	A30	5,831,690		Lyons et al.	11/03/1998	
	A31	5,862,451		Grau et al.	01/19/1999	
	A32	5,867,528		Verbueken	02/02/1999	
	A33	5,896,414		Meyer et al.	04/20/1999	
	A34	5,903,558		Jones et al.	05/11/1999	
	A35	5,909,384		Tal et al.	06/01/1999	
	A36	5,937,005		Obuchi et al.	08/10/1999	
	A37	5,940,743		Sunay et al.	08/17/1999	
	A38	5,963,843		Sit et al.	10/05/1999	
	A39	5,963,870		Chheda et al.	10/05/1999	
	A40	5,974,106		Dupont	10/26/1999	
	A41	5,978,855		Metz et al.	11/02/1999	
	A42	5,991,286		Labonte et al.	11/23/1999	
	A43	6,009,310		Motohashi	12/28/1999	
	A44	6,035,008		Kim	03/07/2000	

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	C9	Data-Over-Cable Service Interface Specifications, Baseline Privacy Interface Specification, SP-BPI-102-990319 (March 19, 1999) pp. i-88			
	C10	Data-Over-Cable Service Interface Specifications, Baseline Privacy Interface Specification, SP-BPI-102-990731 (July 31, 1999) pp. i-160			

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	A45	6,052,408		Trompower et al.	04/18/2000	
	A46	6,072,839		Mondal et al.	06/06/2000	
	A47	6,075,787		Bobbeck et al.	06/13/2000	
	A48	6,111,887		Daily et al.	08/29/2000	
	A49	6,112,232		Shahar et al.	08/29/2000	
	A50	6,128,588		Chacon	10/03/2000	
	A51	6,140,911		Fisher et al.	10/31/2000	
	A52	6,141,356		Gorman	10/31/2000	
	A53	6,157,311		Berkovich	12/05/2000	
	A54	6,160,447		Huang	12/12/2000	
	A55	6,172,970 B1		Ling et al.	01/09/2001	
	A56	6,185,227		Sipola	02/06/2001	
	A57	6,195,697 B1		Bowman-Amuah	02/27/2001	

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	C11	Data-Over-Cable Service Interface Specifications, Radio Frequency Interface Specification, SP-RF1v1.1-I03-991105 (November 5, 1999) pp. i-366			
	C12	Data-Over-Cable Service Interface Specifications, Operations Support System Interface Specification SP-OSS1v1.1-D01-991115 (November 15, 1999) pp. i-81			
	C13	Data-Over-Cable Service Interface Specifications, Operations Support System Interface Specification SP-OSS1v1.1-103-001220 (December 20, 2000) p. ii			

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